

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-3 (canceled)

1 Claim 4 (presently presented): A printer comprising:
2 a thermal head for transferring a plurality of color
3 inks successively to paper so that a color image can be
4 printed on the paper according to image data;
5 battery power supply means;
6 voltage detecting means for detecting a voltage
7 developed from said battery power supply means; and
8 control means for feeding power supplied from said
9 battery power supply means to a load at the timing
10 immediately preceding the transfer of the color inks to
11 the paper, instructing said voltage detecting means to
12 detect the voltage developed from said battery power
13 supply means at the predetermined timing immediately
14 succeeding the feeding of power, and performing
15 correction according to the result of the detection so
16 that a printing density of inks transferred from said
17 thermal head will remain constant irrespective of whether
18 the voltage developed from said battery power supply is
19 high or low ~~The printer according to Claim 1, wherein:~~
20 the predetermined timing is found within a period which,
21 after power feeding of a predetermined period,
22 immediately succeeds discontinuation of the feeding of
23 power, which is supplied from said battery power supply
24 to the load for a predetermined time; and during the
25 period, the voltage developed from said battery power
26 supply remains substantially constant.

1 Claim 5 (original): The printer according to Claim 4,
2 wherein the predetermined timing is found with a period
3 of 5 to 10 msec long immediately succeeding
4 discontinuation of feeding of power, which is supplied
5 from said battery power supply means to the load for a
6 predetermined time.

Claim 6 (canceled)

1 Claim 7 (original): A printer comprising:
2 a thermal head for transferring a plurality of color
3 inks successively to paper so that a color image can be
4 printed on the paper according to image data;
5 battery power supply means;
6 battery detecting means for conducting a current to
7 a first load so as to detect a remaining battery capacity
8 of said battery power supply means;
9 display means for, when the remaining battery
10 capacity detected by said battery detecting means is
11 judged to be equal to or smaller than a battery capacity
12 required for printing, displaying at least an indication
13 of the fact;
14 voltage detecting means for detecting a voltage
15 developed from said battery power supply means; and
16 control means for feeding power, which is supplied
17 from said battery power supply means, to a second load
18 smaller than said first load at the timing immediately
19 preceding the transfer of the color inks to the paper,
20 then instructing said voltage detecting means to detect
21 the voltage, which is developed from said battery power
22 supply means, at the predetermined timing immediately
23 succeeding the feeding of power, and then performing

24 correction according to the result of the detection so
25 that a printing density of inks transferred from said
26 thermal head will remain constant irrespective of whether
27 the voltage developed from said battery power supply
28 means is high or low.

1 Claim 8 (original): The printer according to Claim 7,
2 wherein the first load is said thermal head to which a
3 current is conducted, and the second load is said thermal
4 head to which a current is conducted for a time shorter
5 than a time for which a current is conducted to the first
6 load.

1 Claim 9 (original): The printer according to Claim 7,
2 wherein the first load is said thermal head to which a
3 plurality of current pulses is applied, and the second
4 load is said thermal head to which a plurality of current
5 pulses that numbers smaller than the plurality of current
6 pulses applied to the first load is applied.

1 Claim 10 (presently presented): A printer comprising:
2 a thermal head for transferring a plurality of color
3 inks successively to paper so that a color image can be
4 printed on the paper according to image data;
5 battery power supply means;
6 voltage detecting means for detecting a voltage
7 developed from said battery power supply means; and
8 control means for feeding power, which is supplied
9 from said battery power supply means, to a load at the
10 timing immediately preceding the transfer of the color
11 inks to the paper, then instructing said voltage
12 detecting means to detect the voltage, which is developed

13 from said battery power supply means, at the
14 predetermined timing immediately succeeding the feeding
15 of power, and then performing correction according to the
16 result of the detection so that a printing density of
17 inks transferred from said thermal head will remain
18 constant irrespective of whether the voltage developed
19 from said battery power supply means is high or low,
20 wherein said voltage detecting means detects battery
21 voltages respectively at different times under different
22 load conditions for said battery power supply means prior
23 to commencing a print operation, and
24 wherein said control means calculates a printing
25 ratio defined by the thermal energy generated by the load
26 based on the number of loads activated simultaneously and
27 the voltages detected by said voltage detecting means and
28 controls power application duration of the load in
29 accordance with the printing ratio
30 ~~wherein for the correction performed by said control~~
31 ~~means, a correction value is determined based on the~~
32 ~~voltage detected by said voltage detecting means; and~~
33 ~~when the same voltage is detected among transfers of~~
34 ~~color inks, the correction value is determined to assume~~
35 ~~the same value among the transfers.~~

1 Claim 11 (original): The printer according to Claim 10,
2 wherein when the same voltage is detected among transfers
3 of the color inks and transparent overcoat, the
4 correction value is determined to assume the same value
5 among the transfers.

1 Claim 12 (original): A printer comprising:

2 a thermal head for transferring a plurality of color
3 inks successively to paper so that a color image can be
4 printed on the paper according to image data;
5 battery power supply means;
6 voltage detecting means for detecting a voltage
7 developed from said battery power supply means; and
8 control means for feeding power, which is supplied
9 from said battery power supply means, to a load at the
10 timing immediately preceding the transfer of the color
11 inks to the paper, then instructing said voltage
12 detecting means to detect the voltage, which is developed
13 from said battery power supply means, at the
14 predetermined timing immediately succeeding the feeding
15 of power, and performing correction according to the
16 result of the detection so that a printing density of the
17 inks transferred from said thermal head will remain
18 constant irrespective of whether the voltage developed
19 from said battery power supply means is high or low,
20 wherein when the voltage detected by said voltage
21 detecting means is a first voltage, the correction
22 performed by said control means results in printing at a
23 maximum density.

1 Claim 13 (original): The printer according to Claim 12,
2 wherein said battery power supply means develops a
3 predetermined stable voltage after completion of
4 charging, and the first voltage shall be lower than the
5 predetermined voltage.

1 Claim 14 (original): The printer according to Claim 12,
2 further comprising a thermal head temperature measuring
3 means, wherein:

4 when a correction value is determined so that when
5 the result of measurement performed by said temperature
6 measuring means is predetermined temperature, printing
7 will be performed at a maximum density;

8 when the result of measurement performed by said
9 temperature measuring means is higher than the
10 predetermined temperature and the voltage detected by
11 said voltage detecting means is lower than the first
12 voltage, a correction value used to correct the voltage
13 is provided as a virtual density to be set so that a
14 product of the virtual density by a density provided as a
15 correction value determined based on the result of
16 measurement performed by said temperature measuring means
17 will not exceed the maximum density.

1 Claim 15 (original): A printer comprising:

2 a thermal head having a plurality of heating
3 elements arranged therein in order to print a color image
4 on paper according to image data;

5 first correction value determining means for
6 calculating a printing ratio relative to each gray-scale
7 level specified in image data representing one line, and
8 determining a correction value according to calculated
9 printing ratios;

10 second correction value determining means for
11 performing an arithmetic operation using all gray-scale
12 data items, based on which said all heating elements are
13 heated for printing one line according to the image data,
14 and determining a second correction value according to
15 the result of the arithmetic operation; and

16 control means for controlling the amounts of heat to
17 be generated from said heating elements according to the

18 correction values determined by said first and second
19 correction value determining means.

1 Claim 16 (original): The printer according to Claim 15,
2 wherein said second correction value determining means
3 calculates a sum total of all gray-scale levels based on
4 which said all heating elements are heated for printing
5 one line according to the image data, and determines a
6 correction value according to the sum total.

1 Claim 17 (original): The printer according to Claim 16,
2 wherein said second correction value determining means
3 works out an average level from the calculated sum total,
4 calculates a first average of gray-scale levels exceeding
5 the average level, calculates a second average of gray-
6 scale levels falling below the average level, and
7 determines a correction value according to the first and
8 second averages.

1 Claim 18 (original): The printer according to Claim 17,
2 wherein said second correction value determining means
3 determines a correction value according to a difference
4 between the first and second averages.

1 Claim 19 (original): The printer according to Claim 15,
2 wherein controlling the amounts of heat is achieved by
3 varying only a power feeding time during which power is
4 fed to each heating element.